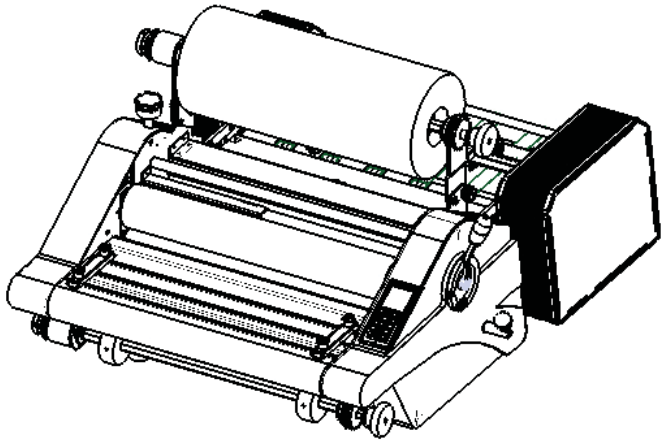
USER'S GUIDE

SURELAM-PRO540HR



LEADERS IN LAMINATION TECHNOLOGY

www.gmp.com

Before operating the unit, please read this manual thoroughly and retain it for the future reference.

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Safety Instruction

※Safety Instruction-This is for keeping the user in safety and prevent damage.
Please read carefully and follow this instruction.

Safety Instruction is classified as "Warning" and "Caution", the meaning is as follows.

This symbol is to remind you of the personal injury and risk during the operation.

경 고 Warning If you ignore this symbol, you could suffer serious injury or death

주 의 Caution If you ignore this symbol, you could receive a serious injury or loss of property

This symbol means a prohibited action. If you ignore a prohibited action, you could suffer a personal injury and damage the machine.

This symbol means a required action. If you don't follow this action, your safety is not guaranteed.

Safety Instruction

Warning

Power Supply

	Do not connect or disconnect with wet hands, as this will cause an electric shock
	Do not overload a power supply
	Do not use other voltage and power supply other than specified, as this will cause a fire and an electric shock.
	Do not spill any liquids on the laminator as this will cause damage and a possible electric shock
	Make sure plug is in the socket, as it could cause fire or an electric shock
	Do not use a damaged plug or lead, as this could cause a fire or an electric shock
	Do not bend or pull the plug as this could cause a fire.

Installation and Use

	Do not use materials near a naked flame
	Do not dissemble, make repairs or convert the machine. Contact your dealer for repairs
	Do not spill any liquids on the laminator as this will cause damage and a possible electric shock
	Do not use the flammable spray or flammable materials inside or outside the machine. As this could cause a fire.
	Do not allow childern use of this equipment

⚠ CAUTION

Power Supply

	When moving the product, turn off the power switch, disconnect the power plug from the socket
	When lamintor is not in use, you must turn off the power switch, disconnect the power plug from the socket.

Installation & use

	Keep gears and chains free of all materials
	Do not touch the roller and heating plate with your hand as you could be burnt.
	Please avoid installing near the following places *Nearby Gas Stove or Ventilator or Air Conditioner *Nearby cooking place or humidifier *Nearby a direct ray of light reaching *Nearby much dust or shaking happening *Dark place or steep slope place
	Do not put any materials on the machine. Because it can bring the transformation of materials or damage mechanic system of machine. Due to high temperature of machine surface.
	While the operating machine, User should avoid touching laminated film or surface of machine. Children can have a burn.
	Long hair, Necktie, Pendent should be kept away from laminating feeding zone. It can roll into the machine.
	Avoid using machine except laminating purpose. Otherwise, it can cause an accident or machine broke down.
	During laminating, please keep tidy around the machine.

INDEX

Notice

▶Contents 6

▶Introduction and feature 6

▶Carriage & Installation 7

Operating

▶Part name 8

▶Control panel 9

▶How to perform main devices 13

▶How to Laminate with this machine 18

▶Lamination guide 19

Maintenance & Service

▶Maintenance 22

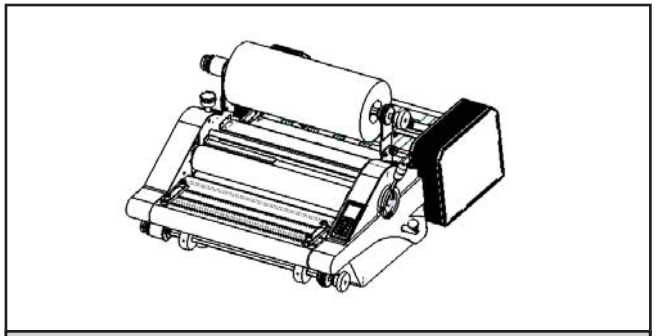
▶Laminating Quality 23

▶Specification 24

▶Memo 25

Packing contents

Packing contents



Laminator

Fuse 3.15A
Fuse 6.3A

User's Guide

INTRODUCTION AND FEATURE

Thank you for purchase GMP Laminator.
GMP Laminator is one of the best in the world and developed following customer's requirement.
GMP Laminator produced by close quality inspection.
Read user's manual careful, and save this manual for later use.

Feature

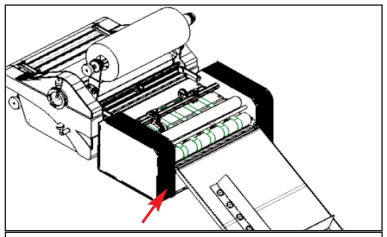
Amount of increased film	Multi talanted plate	Strong cooling system
8-bit Microprocessor Control	LCD panel for error protection	Safty plate
Film alignment device for Up & Down (patent)	Lamination for Both Side & Single Side	Film guide

Carriage & Installation

Connecting Compressor

This machine needs to get pressor from out side in order to operate Bursting Roller.

Insert the Enclosed Air Hose into the compressor.



Insert the Air Hose into the machine.

Pull the cap after power supply is connected to the compressor.

Push as shown in the picture.

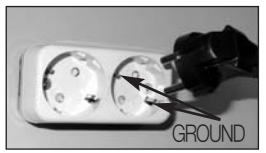
Reference

We recommend the compressor is installed outside. If it is installed inside the lamitable, hot temperature can affect the machine. Dry filter has to be cleaned everyday.

Carriage & Installation

▶**Carriage**: Please be careful when you unpack and move the machine.

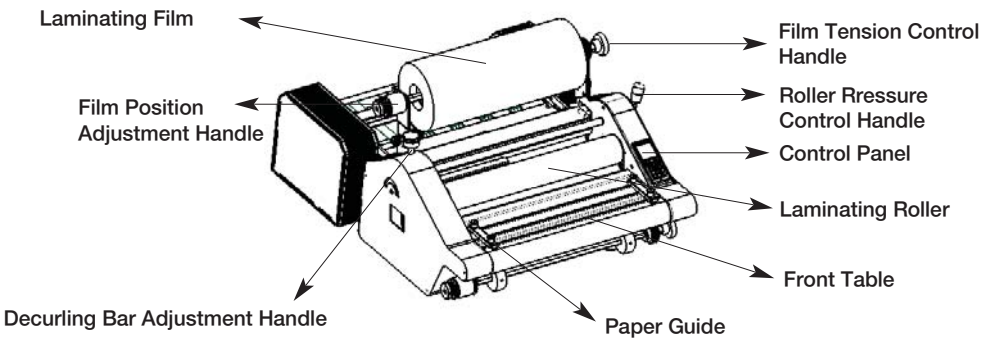
▶**Installation**: Please install the machine in the even and hard place.

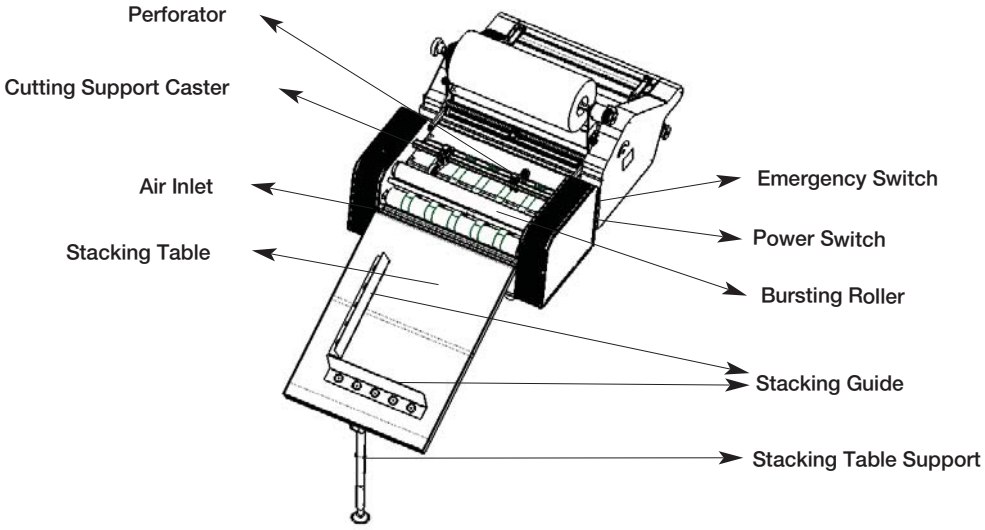


▶**Power connection** : Power over AC 220V/15A is not permittable. Use the power supply only for this machine. Grounding is necessary for safety. Please refer to Page 3~4.

PART NAME

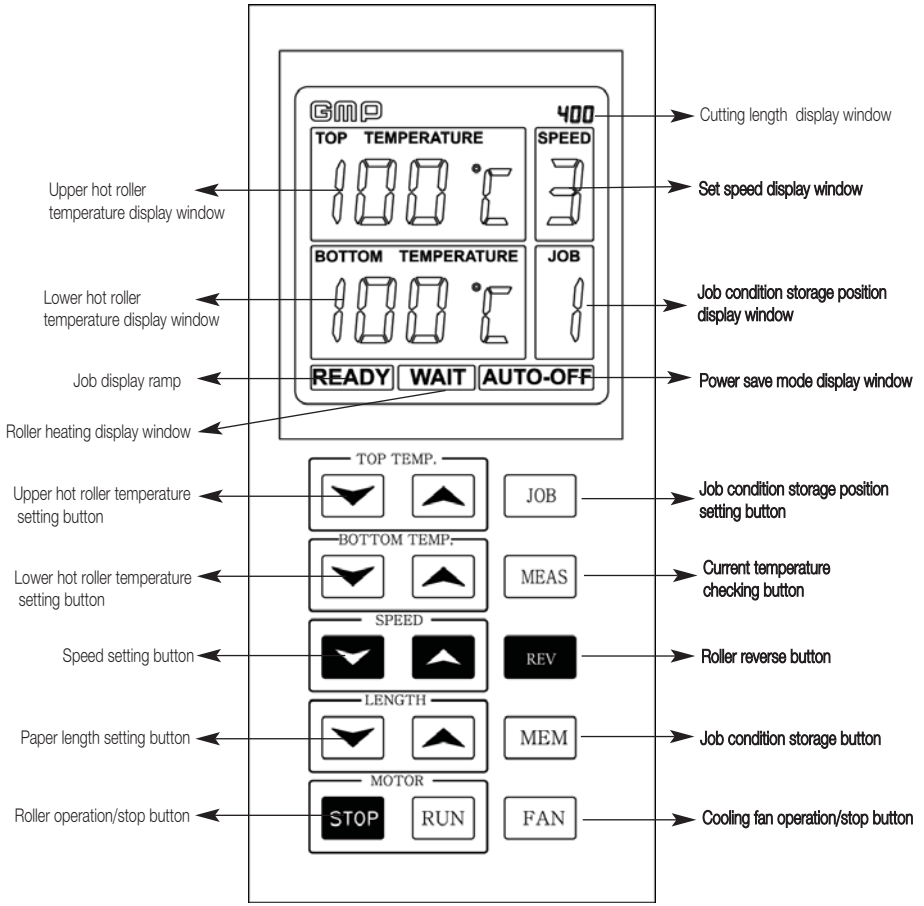
PART NAME



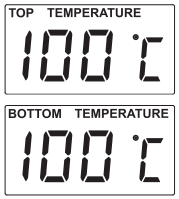


Operation of Control Panel

Configuration of the control panel



Funtion of Display & Button



▶ Hot roller temperature display window

Set temperature and current temperature are displayed. Usually set temperature is shown.
If you press "Current temp. display button" among functional buttons, current temperature is appeared. Changing set temperature can be done by "Hot roller temp. setting button".

Funtion of Display & Button

SPEED 3

▶Set Speed Display Window/ Both Side or Single Side Laminating Display Window

It displays roller revolution speed from 1 to 9 and can be changed by "Speed set button".
If "SPEED" is blinking, it means Single Side Lamination & if "SPEED" is not blinking, it shows Both Side Lamination.

JOB 1

▶ Job Condition Storage Position Display Window

It can store 9 kinds of different job conditions from 1 to 9. Displayed number means a step of job which stores current roller temperature and revolution speed. Job changing can be made through job change button(Job condition storage position setting button).

READY

▶ Job Display Window

"READY" means roller temperature arrived to set temperature. Start lamination when "READY" displays.

WAIT

▶Roller Heating Display Window

"WAIT" means roller temperature is not suitable(low temp.) than set temperature.
Temperature must be low if you start lamination when "WAIT" displays.
If "WAIT" is blinking, roller temperature is higher than set tempterature.
Temperature must be high if you start lamination while "WAIT" is blinking.

AUTO-OFF

▶ Power Save Mode Display Window

"AUTO-OFF" displays the machine is in power save mode.
This machine has safe/power save function which shuts off its power for safe and power saving when it is not used for a long time.

400

▶ Cutting Length Display Window

It shows the time when the cutting roller starts. The setting range of paper cutting is "210~1100".
Set the value according to the real paper length.

PSr

▶ Photo Safety Sensor Display Window

It is displayed when the Photo Safety Sensor starts to work.

ESr

▶Emergency Switch Display Window

It is displayed when the Emergency Switch is pressed during the roller operation.

dOL

▶ Both Side Lamination Setting Window

It is displayed when the machine is set for Both Side Lamination.

SnL

▶Single Side Lamiantion Setting Window

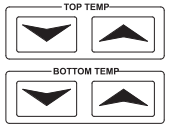
It is displayed when the machine is set for Single Side Lamination.

HRS . RUN

▶Motor Display Window

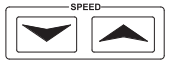
It is displayed when the motor is working. When the motor is working, the letter is blinking.

Reference Refer to the Function of the Button for Paper Cutting Timing Setting.



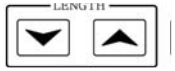
▶Temp. Setting Button

Button for roller temperature. Roller temperature setting scope is min. 0 to max. 150 .
TOP TEMP: Upper Hot Roller Temperature Button
BOTTOM TEMP: Lower Hot Roller Temperature Button



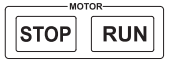
▶ Speed Setting Button

It sets revolution speed of rollers. Roller revolution speed can be controlled from 1 to 9 step.



▶ Paper Length Setting Button

Button for Paper Length Setting.
Paper Length shows the cutting timing of the cutting roller. Setting Range for cutting timing is 210~1100.
Setting value should be same to Real Paper Length.



▶Operation /Stop Button

It turn rollers and stop revolution of rollers. Pressing STOP button makes turning roller stop.
Pressing RUN button makes the roller turn by set speed.

REV

▶ Roller Reverse Button

It reverses rollers. While REV is being pressed, roller will reverse and beep sound can be heard while number in speed display window is blinking. This sound is made during roller reverses and Sound will stop once reversing ends.

MEAS

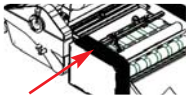
▶ Current Temperature Checking Button

Pressing Current temp. checking button "MEAS" makes Current temp. of Up/Lower roller be appeared twinkling on display window. This is for easy identification from set temp and the letter will be displayed when the button is released.

FAN

▶ Cooling Motor Operation Button

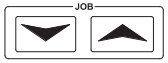
Button for running cooling motor. Single pressing FAN button makes cooling motor runs and second pressing makes it stop.
Cooling motor operation is required to prevent temp. raising of rear hot roller and to prevent wrinkle status on the laminated products durling mass lamination.



▶ "BURSTING STARTER

Bursting Starter Button is for Cutting Roller Operation. Pressing Button makes the Cutting Roller start to work. The cutting roller works in accordance with Paper Length on Paper Length Window.

Please operate after Test Lamination Process (Refer to Laminating Sheet))



What is JOB function

It memorizes user's frequently using job condition to memory and gets rid of uneasiness of button control to set job condition every time when the machine is used.
It saves 9 kinds of different machine conditions from JOB1 to JOB9.

MEM

Job Condition Storage Position Setting Button(JOB Button)

Button for setting JOB position from JOB1 to JOB9

Job Condition Saving

1) Select the number by using JOB Button.
2) Set the Roller Speed you want to save by using Roller Temp. Setting Button.
3) If the temp. and speed are reset, the setting value will be blinking for 2 secs and automatically saved in the memory.

TIPS

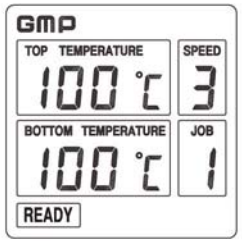
When temp and speed setting are changed, the changed number and presently marked JOB number twinkles for 2second. This is not only for checking if changed contents is right but also for questioning about saving changed contents in presently displayed JOB.

Power Save/Stand-by Mode(AUTO-OFF)

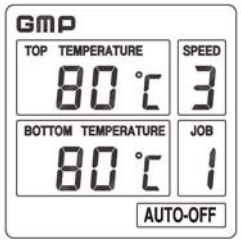
Automatic power breaking function for accident prevention and power save by controlling roller temp. lower than 80 or power breaking when the machine is left not operated for a long time.

Power Save Mode

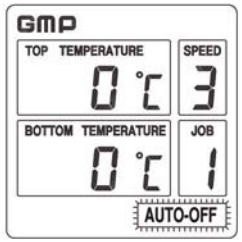
기If the machine is not used for more than 2 hours, the microprocessor embeded in the machine keeps the roller temperature under 80.(If set temp. is lower than 80, it will be controlled by decreasing to 0).At this moment power mode display lamp(AUTO-OFF) is turned on and READY or WAIT display is erased.And then after 1 hour, power save mode display lamp(AUTO-OFF) will twinkle and power will be completely off.Power save mode release in the above two case is available only by pressing "Operation /Stop Button" and all status return to former state before power save mode when power save mode is released.



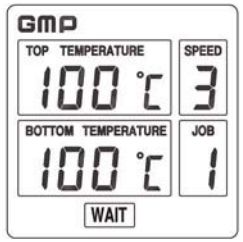
▶Former state before setting power save mode



▶Setting power save mode

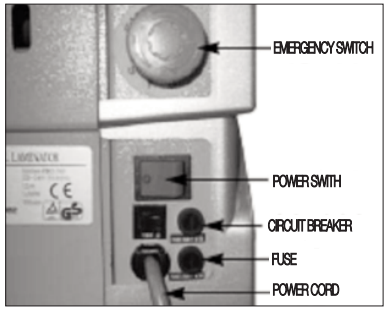


▶Setting Stand-by(safety) mode



▶Releasing power save/stand-by mode

How to Use the Main Devices



Power S/W

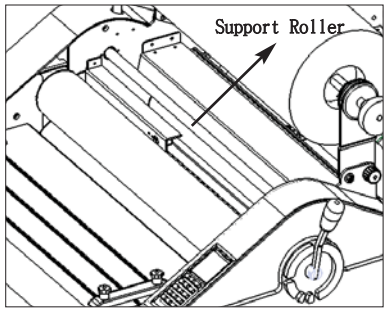
To supply or to cut the Power to the machine.
Press "-" for Power ON and press "0" for Power OFF.

Power Cord

To connect the power to the machine.

Circuit Breaker

To cut the Power automatically if the machine has overload or overcurrent.If this Circuit Breaker is activated, the machine has to be cooled down and press the Button of the Breaker.* If this Breaker is activated more than 2 times, please contact to the supplier.

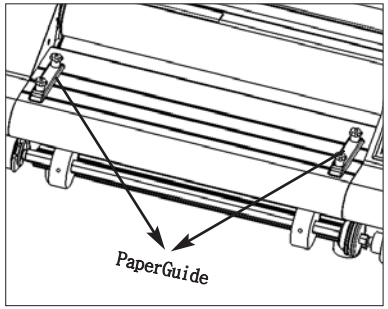


Fuse

To protect the Electrical / Electronical Circuits from the overload in the machine.To replace the fuse, it has to be pressed & turned to the counterclockwise direction to pull it out.Please check the fuse status and replace it.

WARNING

While the Fuse is checked & replaced, the Power Cord has to be unplugged. Otherwise, this will be caused by electrical shock.



Emergency S/W

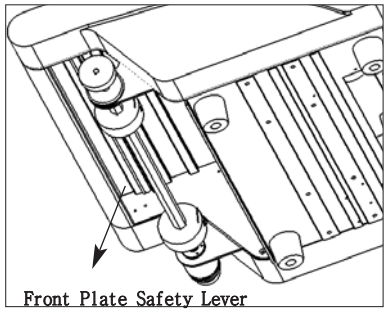
Press it for an emergency status is occurred while lamination.
Press to stop the Motor (Roller). In order back to normal status, rotate the S/W as to the direction on the S/W.

Support Roller

To spread the films to the Roller. Please make the film web pass through this support roller..

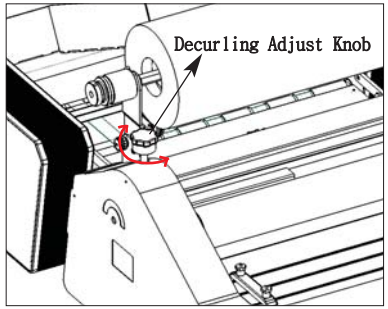
Paper Guide

To feed the substrates exactly.
Fix the film & substrate feeding position.



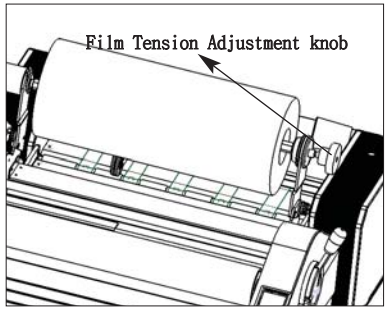
Front Plate Safety Lever

For operator's safety.
The lever is available to be moved to the Right / Left directions.
To install the Front Plate, pull the lever to the right and place it.
After the plate is installed, release the lever.
* If the Lever would not be fixed at the Front Fixing hole, the Roller would not be working.



▶ Decurling Bar

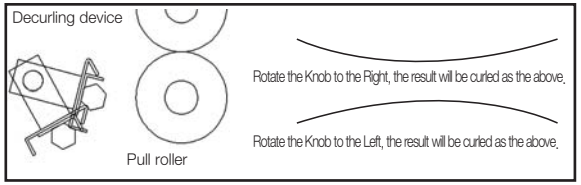
To avoid Curling after Single Side Lamination.
The Angle for Decurling can be adjusted by Decurling Adjust Knob.
(Refer to the "Decurling Adjust Knob" for control.)

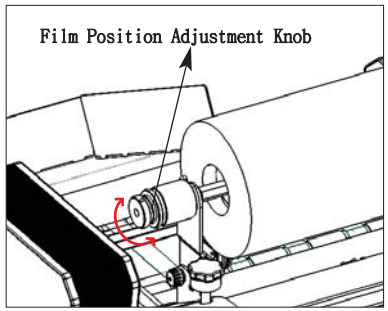


▶ Decurling Adjust Knob

This Laminator is for Single & Double Side Laminator.
For the Single Side Lamination, it is natural thing to have curling on the laminated results and is not caused by trouble in the machine.
In order to adjust the Decurling Value, please rotate the know to the arrow on the picture.

Rotate the Knob to the Right, the result will be curled as the above.
Rotate the Knob to the Left, the result will be curled as the above.


Decurling device
Pull roller
Rotate the Knob to the Right, the result will be curled as the above.
Rotate the Knob to the Left, the result will be curled as the above.

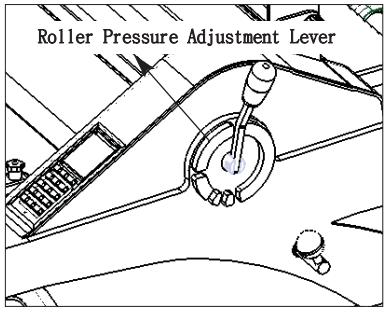


▶ Film Tension Adjustment Knob

The Film Tension can be adjusted.
Rotate it to the right to increase the Tension & Rotate it to the left to decrease the Tension.

▶ Film Position Adjustment Knob

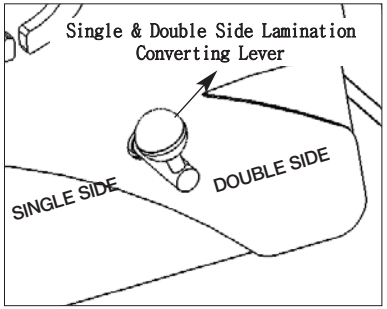
To adjust the Film Position (to the left or the right) after the film loading.The rotating of the knob makes film moving little by little.
Use this for minute adjustment of film position



▶ Roller Pressure Adjustment Lever

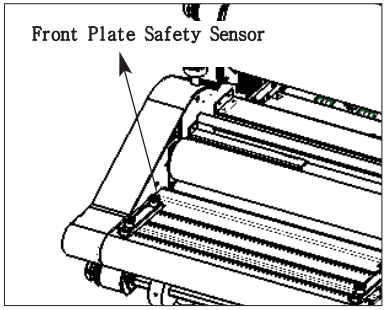
To adjust Roller Pressure. The proper pressure can be selected.

How to Use the Main Devices



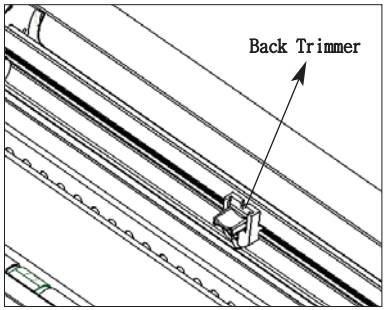
▶ Single & Double Side Lamination Converting Lever

To convert the Laminating Condition.
Double Side : For Double Side Lamination / reduce the speed.
Single Side : For Single Side Lamination / increase the speed..



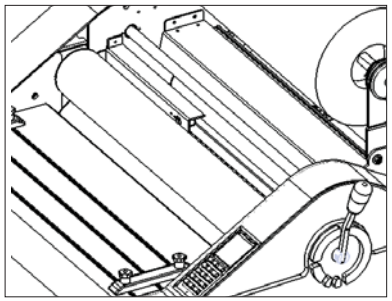
▶ Front Plate Safety Sensor

They are equipped at the Right / Left ends between the Front Plate & Upper Roller.make the machine stop for operator's safety & for protection of machine.



▶ Back Trimmer

The Trimmer is used to trim the laminated results.
Press the Lever and push it from the left to the right to trim the results.

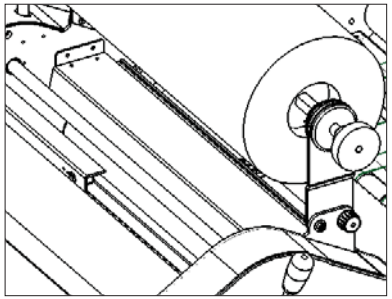


Laminating Roller

his is teflon coated roller and temperature can be controlled by temp sensor.
It can be set from 0℃ to 150℃, but generally set 100℃.

Roller Temperature Sensor

This is used to sense papers when the buster is working.
It must be kept clean for optimal performance.

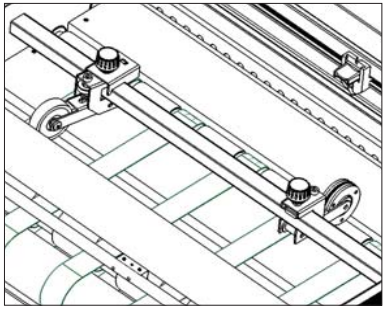


Pulling Roller Cover

This is equipped for safety of operator.
Do not disassemble voluntarily.

Notice

In case of initial loading condition or moving the perforator right & left, please loosen the bolt so the blade or roller is kept undamaged

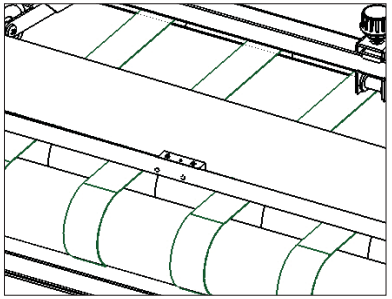


Perforator Control

This is used to perforate the end of films so the laminated papers can be easily cut. As you can see in the picture, put the perforator roughly 1~3 mm inside
from the end of the film. Take the bolt which is used to adjust the height of perforator,
and put pressure on the paper hard enough to perforate.

Bursting Sub Roller

This is used to keep each page of paper apart and to prevent films from being torn out. Place it that it is moderately bent, so the papers do not stick out and neatly cut. You need to adjust the angle of the roller so the paper does not be folded.

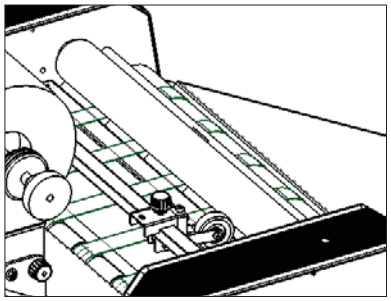


Paper Sensor

This is used to sense papers when the buster is working.
It must be kept clean for optimal performance.

Notice

If the cutting sub roller is set unproperly, the papers can be folded while laminating.

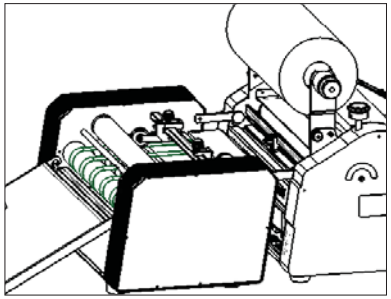


Bursting Roller

This is used to cut the laminated papers.
If you press the "Bursting start" switch, the roller moves up and down and starts bursting.

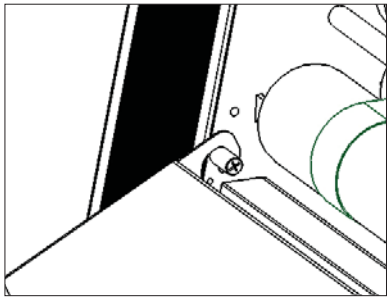
Notice

The roller revolves at high speed. Please keep your fingers and clothing away from any moving parts.



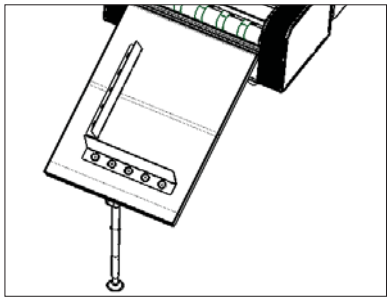
BURSTING STARTER

This is used to operate the bursting roller. If you press the switch, the roller starts working automatically according to the length of the paper set on the display panel of SurelamPro-540HR.



Paper Stacker Hanger

This is used to hang a paper stacker.
It is located on either side.



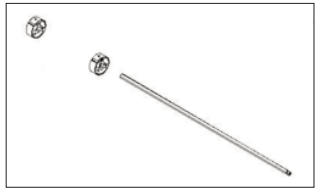
Paper Stacker Guide

With the stacker, laminated papers get easier to be arranged.
Adjust a stacker guide to match the length and width of the papers.

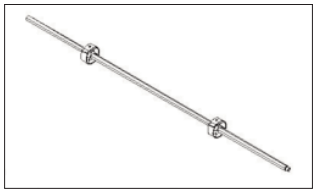
Laminating method (Singside Lamination)

Laminating Procedure

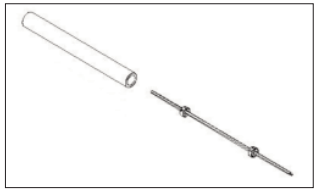
▶ 1st step : Film Installation



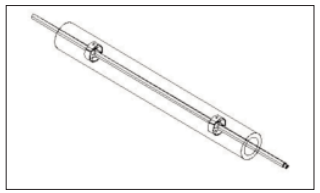
Insert 3" Black Core in shaft like picture.



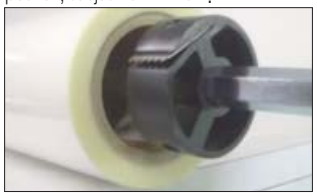
Fix the Core with bolt in appropriate position, subject to film width.



Insert the laminating film in film shaft.



Film become installed as it is in picture.



In inserting Core, the sawteeth is installed in reverse direction of unwinding.

Fix the film shaft in the holder like picture.

Warning The film is so heavy that more than 2 people are required to work. It might be the cause of damage.

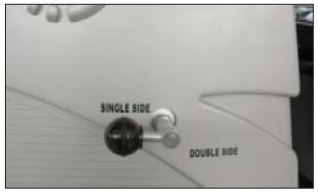
1. Insert the paper between upper/lower roller.

2. Get the inserted papers passed through the Decurling bar and Idle roller.

3. Pass the upper film through the idle roller and hold it upward.

4. Attach the paper to the upper film.

5. Drop Roller Pressure Adjustment Lever like picture.



6. Turn Speed Adjustment Knob to SINGLE SIDE.

7. Press the adjustment button of paper length for the length input.

8. Press RUN button and begin the lamination. The paper overlap is 3mm.

9. When the paper overlapping part is located between Perforator and Bursting Sub Roller, press BURST N switch and start bursting.

▶ **Refer to the position in Page 14 "Roller Pressure Adjustment Knob"**

▶ Adhesive of laminating film can be pushed out to both end part of film. Since this is general phenomenon of hot laminating, the roller cleaning is required after completing lamination.

▶ Refer to the page 20 "Lamination Guide" for laminating temperature and speed.

▶ **In case that the paper width is narrower than that of laminating film, the adhesive might contaminate the lower roller. Possibly set paper width wider than that of film**

▶ When the roller stops, place the roller's pressure adjustment know on preheat/standby. It is to prevent the damage of roller.

▶ Set the temperature of lower hot roller at "0 ℃". It is to prevent the contamination and damage of roller.

Lamination Guide

▶ When the roller temperature reaches the set point, take a test operation for checking the setting condition and laminating condition

▶ Checkpoint in Test Operation

1. Overlap of paper : 3~5mm is ideal.
2. Decurling State : Make adjustment with the Decurling Adjustment Knob by checking the curling degree of paper.
3. Laminating State : Confirm the pressure and temperature condition in various range.
4. Bursting : Check the movement of Perforator and the operation point of bursting roller.

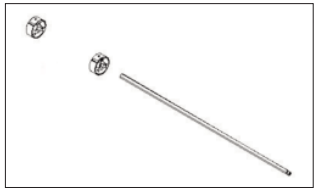
Condition for laminating

1. Do not leave the paper pass the rollers. It may not pass through the rollers easily.
2. Sudden stop can leave any mark on laminating paper.
3. Usually, thicker the paper and film, slower the speed and higher the temperature.
4. Thinner the paper and film, faster the speed and lower the temperature.
5. If it is to be sure for laminating, in advance, do lamination with the similar paper or goods in the appropriate temperature for finding a suitable temperature and speed.
6. It might be cause of machine malfunction if the other films not made by GMP are used.
7. If the paper is fed rightly into the feeding part, it is the cause of crease.
8. When the lamination results in the haziness of paper due to bad bonding, lower the speed one step or lower thetemperature.

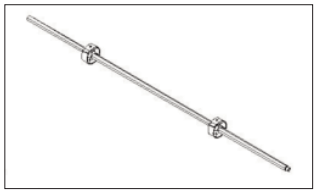
Laminating method (Doubleside Lamination)

Laminating Procedure

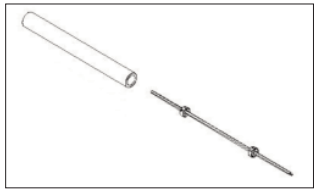
▶ 1st step : Film Installation



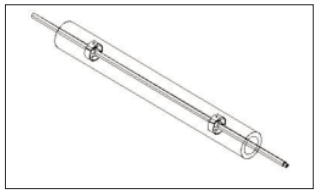
Insert 3" Black Core in shaft like picture.



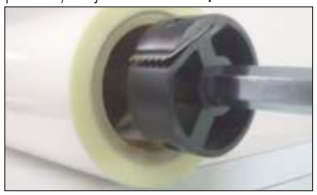
Fix the Core with bolt in appropriate position, subject to film width.



Insert the laminating film in film shaft.



Film become installed as it is in picture.



In inserting Core, the sawteeth is installed in reverse direction of unwinding.

Fix the film shaft in the holder like picture.

Warning The film is so heavy that more than 2 people are required to work. It might be the cause of damage.

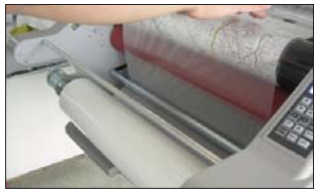
1. Insert the paper between upper /lower roller.

2. Get the inserted papers passed through the Decurling bar and Idle roller.

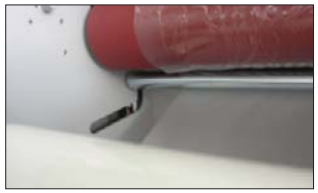
3. Pass the upper film through the idle roller and hold it upward.

4. Attach the paper to the upper film.

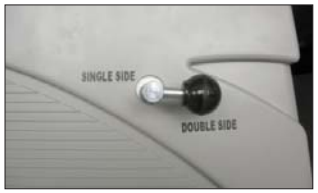
5. Install the lower films like picture.



6. Pass the lower film beneath the idle rollers and attach it to the upper film.



7. Move the lower idle roller to position like picture.



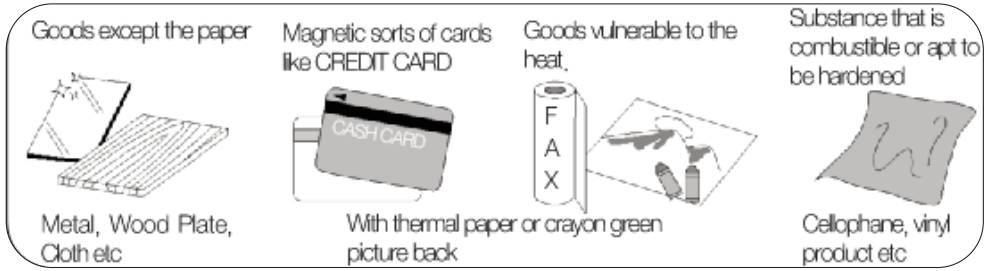
8. Turn Speed Adjustment Knob to DOUBLE SIDE.

9. Install Front Plate.

10. Press RUN button to start laminating

▶ Do not operate the burster in doubleside lamination.
▶ Adhesive of laminating film can be pushed out to both end part of film. Since this is general phenomenon of hot laminating, the roller cleaning is required after completing lamination.

That the hot laminating is not available are as below;


Goods except the paper
Metal, Wood Plate, Cloth etc
Magnetic sorts of cards like CREDIT CARD
CASH CARD
With thermal paper or crayon green picture back
Goods vulnerable to the heat.
F
A
X
Substance that is combustible or apt to be hardened
Cellophane, vinyl product etc

Warning

Be careful that the paper printed by dysublimation printer might show the discoloration in some time after the lamination.

MAINTENANCE

Tips for maintenance guide

1)To release the roller pressure handle after finishing the lamination.
2)When the heat roller is heated and pressured, operate the roller
3)Heat roller temperature needs to be kept at 0℃ when the machine is not used more than 1hour.
-There are for protecting the roller and machine damage

▶ While laminating, the glue will be squeezed out, which is general symptom.After laminating, please clean the roller Cleaning for the roller Laminated material could be contamiated by the foreigb object of the roller To prevent these phenomenon,cleaning of rollers are strongly recommended as explained below. sopropyl alcohol must be used to clean the roller The more you clean the roller after lamination,the better maintenance you can expect.

⚠ Caution It is strongly recommended to clean the roller when it is cooled off. Otherwise that may cause injury.

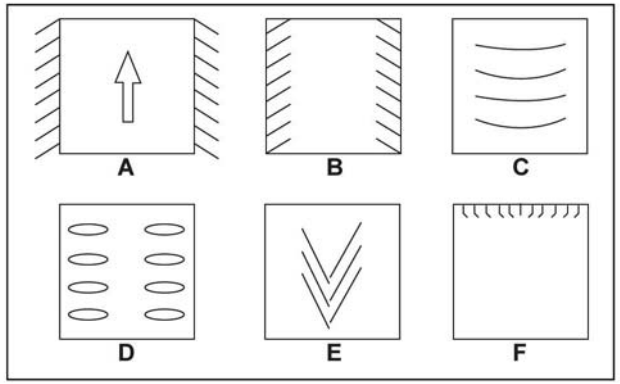
▶ Cleaning of the main body
Use soft cloth to clean main body and cover.
*If detergent or chemicals are used to clean the laminator,keep the instruction of the followingcaution.

⚠ Caution

Pull out the plug from power outlet.
Do not overload a power supply
Do not use the material which is not specified in the above.

TROUBLE SHOOTING

Symptom	Solution
No power on	▶ Check the fuse. If it happens more than twice,contact the A/S ▶ Check the circuit breaker.
Rollers are notrunning	▶ See if emergency stop button is pressed. ▶ Increase pressure on the clutch ▶ See if fuse is cut ▶ Check roller pressure control knob position. ▶ It works normal only when rollers are pressured.
Symptom of picture "A"	▶ Increase roller pressure
Symptom of picture "B"	▶ Decrease roller pressure ▶ Operate cooling fan
Symptom of picture "C"	▶ Decrease roller pressure
Symptom of picture "D"	▶ Increase roller pressure
Symptom of picture "E"	▶ Operate cooling fan after lowering the speed more than 2steps. If not solved by cooling fan,cool off the laminator for 30minutes. This symptom caused by high temperature of the pulling roller.
Symptom of picture "F"	▶ Operate the cooling fan ▶ Decrease roller temperature



Specification

Model	SURELAM-PRO540HR
Power Requirements	AC 220V -240V 50/60Hz
Power Consumption	3450W / 14.4A
Dimension(WxLxH)	780 x 615 x 555mm
Warm up Time	5min
Max Laminating Speed	700mm/min
Max Laminating Width	540mm
Laminating Film	80mic~250mic
Mount	3mm
Paper Thickness	80~350g/m²
Operation Temperature	150℃ Max
Weight	kg
Heating System	Infrared Heater
Temperature Control	Key Pad
Temperature Sensorl	Photo Sensor
Speed control	Key Pad
Main motor	DC Geared Motor
Cooling motor	Blower

제품명	BURSTER-540
Bursting System	PNEUMATIC
Bursting Max Width	540mm
Power Requirements	220V~240V , 50/60Hz
Power Consumption	55W , 0.5A
Speed control	Automatic
Dimension(WxLxH)	800 x 460 x 335mm
Bursting motor	DC Geared Motor
Option	Air compressor

MEMO